

Steel Wire Rope (Cont.)

NOV/2/43

Ch. VI. Fastening Wire Rope to Drums, Hooks, and Hoisting Buckets

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| 1. Fastening rope ends to drums | 125 |
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Appendix. Log for Inspection Results of Hoisting Wire Rope and Rope Requirements

148

AVAILABLE: Library of Congress

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VK/mmh
1-29-30

BUKSHTEYN, Mikhail Abramovich; OZERETSKAYA, A.L., red. izd-va; MIKHAYLOVA, V.V., tekhn. red.

[Steel cables; reference manual] Stal'nye kanaty; spravochnoe rukovodstvo. Izd.2., ispr. i dop. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1961. 175 p.

(Cables)

(MIRA 14:8)

BUKSHTEYN, Mikhail Abramovich; BELEN'KIY, Yakov Grigor'yevich;
MANAKIN, N.V., red.; LEVIT, Ye.I., red. izd-va;
ISLANT'YEVA, P.G., tekhn. red.

[Manual for a worker in the manufacture of wire rope and
hardware products] Kanatchik-metiznik; spravochnik dlia ra-
bochikh. Moskva, Metallurgizdat, 1963. 230 p.

(MIRA 16:7)

(Wire rope industry--Handbooks, manuals, etc.)

BUKSHTEYN, Mikhail Abramovich; LEBEDEV, A.I., red.; VLADIMIROV, Yu.V.,
red.izd-va; GINZBURG, R.Ya., tekhn. red.

[Manufacture of steel wire rope] Proizvodstvo stal'nykh kana-
tov. Moskva, Metallurgizdat, 1963. 330 p. (MIRA 16:10)
(Wire rope industry)

ELEMENTY, I. S.

32667. Bolty s uren'shennor golovkoy v sudostroenii. Trudy nauchno-issledovatel'skogo instituta inzhenerov. Vol. Transporta, vyp. 9, 1949, s. 199 - 202.

SO: Letopis' Zhurnal'nykh Statey, Vol. 44, Moskva, 1949

BUKSHTEYN, M. S. ENG.

Factory Management

Saving metal at the plant "Dvigatel' revoliutsii." Vest. mash 32 No. 4, 1952.

Monthly List of Russian Accessions, Library of Congress, October 1952,
UNCLASSIFIED.

BUKSHTEYN, M.S. - prepodavatel'

Testing drills with differently sharpened points. Izv.vys.
ucheb.zav.; mashinostr. no.6:154-158 '58. (MIRA 12:8)

1. Gor'kovskiy politekhnicheskiy institut.
(Twist drills)

25 (1)

SOV/145-58-7/8-22/24

AUTHOR: Bukshteyn, M.S., Engineer

TITLE: Estimation of Optimum Feeds According to Permissible Strains

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy - Mashino-stroyeniye, 1958, Nr 7-8, pp 196-201 (USSR)

ABSTRACT: When boring, a drill is subjected to compressing and torsional forces. The present article deals with the estimation of maximum tangent stresses acting on drills and with the investigation of the possibility how to increase the drill feed when boring with high speed drills. Research was carried out by means of an electric strain gage with wire resistance transducers. As an experimental installation, the torsional machine "Losenhausen" was used. Research on stresses during the process of drilling was carried out on the turret lathe of the firm "Magdeburg". The tangent stresses sustained by the drill are shown in Fig 2; their maximum value corresponds to the point on the

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SOV/145-58-7/8-22/24

Estimation of Optimum Feeds According to Permissible Strains

drill where the resistance moment $W = 0.03D^3$. The limit of torsion strength $\tau = 272D^{-0.4}$ (Fig 3). The maximum permissible feed when drilling steel with drills of a 6-35 mm diameter is expressed by the function

$$S \leq \sqrt[3]{\frac{0.8}{0.1D^{0.7}}}$$

$S \leq \sqrt[3]{\frac{0.7}{1^2} \frac{10.5D^3}{1^2}}$. In Fig 4 are shown: 1) The curve of permissible tangent stresses $|\tau_1| = 109D^{-4}$ and 2) the curves of maximum tangent stresses worked out on the basis of the equation $\tau_{max} = \frac{M}{0.03D^3}$ for different

feeds and diameters. Fig 4 illustrates that: 1) When the feed is increased, the strains increase also; when drill diameters increase, the strains decrease. 2) The feeds recommended by the reference book "Conditions for Metal Cutting by High-Speed Steel Tools" do

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Estimation of Optimum Feeds According to Permissible Strains

no meet the actual requirements, as: a) for small diameter drills, the recommended feeds are too high and provoke greater strains than it is permissible; this entails unjustified breakdowns of drills: b) for large diameter drills, they are too low - hence the impossibility of a full utilization of tools. 3) The reference book "Standards for Cutting with Instrumental Steel Tools" recommends the feeds which are throughout too high. It leads to an increased percentage of drill breakdowns. There are 3 graphs, 1 table and 2 photographs.

ASSOCIATION: Gor'kovskiy politekhnicheskiy institut imeni Zhdanova
(Gor'kiy Polytechnic Institute imeni Zhdanov)

SUBMITTED: November 14, 1957

Card 3/3

BUKSHTEYN, M.S., inzh.

Graphic methods for determining angles of a tool during cutting.
Trudy GPI 14 no. 7:58-64 '58. (MIRA 14:3)
(Metal-cutting tools)

BUKSHTEYN, M.S., inzh.

Analysis of the content and volume of drafting work. Trudy
GPI 14 no.7:65-73 '58. (MIRA 14:3)
(Mechanical drawing)

BUKSHTEYL, Moisey Solomonovich; SLAVKOV, S.S., dots., red.;
CHERTOV, A.S., red.; CHUVIKOV, N.T., dots., red.;
BLAGOV, V.F., red.; PTITSYN, K.N., red.

[Album of drawings for detailed work in electrical and
radio engineering] Al'bom chertezhei dlia detalirovok
po elektrotekhnike i radicelektronike. Moskva, Energiia
1964. 48 pgs. (MIRA 18:1)

1. Starshiy prepodavatel' radiotekhnicheskikh kafedr
Gor'kovskogo politekhnicheskogo instituta (for Blagov,
Ptitsyn).

DUKSHTEYN, S. M.

1. ALENTSEV, M.N.: BUKSHTEYN, S.M.: KALINICHENKO, I.I.: KUZINA, T.V.:
PEKERMANN, F.M.: CHISTYAKOVA, A.V.
 2. USSR (600)
 4. Electric Lighting, Fluorescent
 7. Luminophores for erythemous luminescent lamps,
Izv. AN SSSR, Ser.fiz. 15 No. 6, 1951.
9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

CA 1244014 Taya V. A. A

3

Luminescent powders for erythral luminescent lamps
M. N. Alientsev, S. M. Bukhtelo, I. I. Kallinichenko,
T. V. Kuzina, P. M. Pekerman, and A. V. Chistyakova.
Izv. Akad. Nauk S.S.S.R., Ser. Fiz. 15, 824-8(1951).
A mixt. of $\text{Ca}_3(\text{PO}_4)_2$ -Ti and $\text{Zn}_3(\text{PO}_4)_2$ -Ti was prepd. (1)
by pptn. of $\text{Ca}_3(\text{PO}_4)_2$ from CaCl_2 with $(\text{NH}_4)_2\text{H}_2\text{P}_2\text{O}_7$,
mixing with some $\text{Zn}_3(\text{PO}_4)_2$, heating to 940-80°, adding
Ti sulfate or pt. phate, and reheating for 1 hr. to 1000°;
(2) heating a mixt. of $\text{Ca}_3\text{H}(\text{PO}_4)_2$, CaCO_3 , $\text{Zn}_3(\text{PO}_4)_2$, and
Ti sulfate to 1000° for 1 hr.; (3) treating a mixt. of CaCO_3 ,
 ZnCO_3 , and Ti sulfate with H_3PO_4 . The brightness of
prepus. (2) and (3) is 1.5 times higher than the brightness
of prepn. (1). The position of the max. of spectral emission
depends on the content of $\text{Zn}_3(\text{PO}_4)_2$. The best samples
contain 10% and have max. at 305-310 m μ . Max. bright-
ness is obtained with 5% Ti. The quantum output drops
from 0.9 to 0.5 when the content in $\text{Zn}_3(\text{PO}_4)_2$ rises from 0
to 15%. The max. of absorption is at 250 m μ . An
erythral dosage was obtained by 0.4-4.0 hrs. irradiation
with a 15-w. lamp at 1 m. distance. S. Pakswar

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

101 AND 110 ORDERS
PROCESSING AND PROPERTIES INDEX

18

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Lake Kuchuk, the basis of the Kulund chemical combine. V. M. Buksheln. *J. Chem. Ind. (U. S. S. R.)* 14, 1587-91(1937). —A description of the resources, chiefly Na₂SO₄ and NaCl, in this western Siberian Lake, is given. H. M. Leicester

COMMON ELEMENTS
MATERIALS INDEX
OPEN

ASA-SLA METALLURGICAL LITERATURE CLASSIFICATION

101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200

1ST AND 2ND ORDERS

PROCESSING AND PROPERTIES INDEX

17

Changes in the concentration of bromine in the saline waters of the lakes of the Kulundinskii steppe. V. M. Bykshstein and N. I. Visyagin. *Byull. Inst. Halurgii* 1938, No. 8, 48-54; *Khim. Referat. Zhur.* 2, No. 3, 26-7 (1939).—Lake Kulundinskoe contains 0.0052-0.0085%, Lake Kuchuk 0.020-0.0317%, Lake Bol'shoye Yarovoe 0.0203-0.0207%, Lake Burluskoe 0.0347-0.0814% of Br. These values are slightly higher than values found by other investigators in 1932 and in 1935; this is attributed to evapn. of water from the lakes. Tabulated results show the change in Br concn. throughout the year for the main lakes of the Kulundinskii steppe. W. R. Heun

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

E-2

(1) AND (2) CROSS REFERENCE PROCESSES AND PROPERTIES INDEX

18

Industrial utilization of the Kulundinskii salt deposits.
 V. M. Rykshchin. *Bull. Inst. Halargii* 1938, No. 7, 40-50; *Khim. Referal. Zhur.* 2, No. 3, 20(1939).--Lake Kuchuk (160 sq. km.) is a reservoir of sulfates. About 600 million tons is contained in its saline waters and in its strata. Lake Bol'shoe Kulundinskoe (750 sq. km.) is less mineralized (7% of salts) and has no bottom deposits. The saline waters of Lake Kuchuk can be regarded as a (Na⁺, Mg⁺⁺) (Cl⁻, SO₄⁻⁻)H₂O system. Other ions are contained in very small amts. In winter, 380-640 thousand tons of mirabilite (150-60 kg./sq. m. of the saline water) is deposited. With increase of the temp. of the H₂O, the mirabilite dissolves. The d. of the saline water and its sulfate content increased steadily from 1930 to 1936 (the concn. of sulfate from 1.74 to 4%). The water remains satd. with NaCl; this might offer difficulties in the utilization of the Lake Kuchuk as a source of sulfates. Its water should be dild. with the water from the less mineralized Lake Bol'shoe Kulundinskoe. Soda, sulfates, Na₂S and a no. of other salts could be produced from it on a com. scale. Methods for the production of mirabilite are proposed.
 W. R. Henn

A S M S L A METALLURGICAL LITERATURE CLASSIFICATION

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
A S M S L A																											

BUKSHTEYN, V. M.

22392. BUKSHTEYN, V. M. Izmeneniye khimicheskogo sostava vody oz. Kuchuk v mirogolotnem tsikle. Trudy Vsesoyuz. Nauch.--Issled. in-ta Galuzii vyp. 21, 1949, s. 243-53--
Bibliogr: 5 NA2V.

SO: Letopis' Zhurnal'nykh Statey, Vol 4-

CA

8

Contemporary salt deposits of Kurguzulak Cove. E. I. Akhmedov, V. M. Bukhalein, and I. D. Karpyuk (The All-Union Scientific Research Inst. of Halurgy, Leningrad. *Zhur. Priklad. Khim.* 23, 907-12(1950); *J. Applied Chem.* 23, 1961-5(1951)(English translation).—The problem of the compn. of the salt deposits of the Kurguzulak Cove of Karabogazsk Bay is examd. The stratification of the deposits is undisturbed. These deposits lie under a series of dark muds, permeated by brines and having a sharp odor of H₂S. Samples taken from the deposits were analyzed for SO₄²⁻, HCO₃⁻, Cl⁻, Mg²⁺, and Ca²⁺, and Na⁺ was found by difference. Also a detn. of the amt. of insol. material was made. The salt deposits are composed essentially of halite and bloedite. Gladys S. Macy

BUKSHMEYN, B. M.

USSR/Chemistry - Natural Brine

Aug 52

"The Metamorphosis of the Natural Brine of Karabogaz Bay," B. M. Bukshmeyn, M. Yu. Garkavi, N. S. Garkavi

"Zhur Prikl Khim: Vol 25, No 8, pp 826-837

PA 228T7

Over a period of yrs, during the change of the hydrochem character of Karabogaz Bay, the following stages were marked: the concn of the natural brine, the crystn of the halite, the common crystn of mirabilite and astrakanite, and the common crystn of halite, astrakanite and epsomite. Certain areas in

228T7

the bay were discovered where distinct physicochem qual and quant processes operate simultaneously. These processes are dependent on the differentiation in the compn of the natural brine in the coastal part of the bay.

228T7

Metamorphosis of the Kara Bogaz Gulf brines. V. M. Butskheli, M. Yu. Garkavi, and N. S. Garkavi. *J. Appl. Chem. U.S.S.R.* 25, 007-16 (1953); *Zhur. Priklad. Khim.* 25, 628-37 (1953).—Concn. of the brines produces crystn. of halite, coxycryst. of halite and astrakanite, and coxycryst. of halite, astrakanite, and epsomite. Zones exist in the gulf in which qualitatively and quantitatively different physicochem. processes are taking place simultaneously which lead to differentiation in compn. of the coastal brines. Bernard Rubla.

7/2
5/7/55

ZDANOVSKIY, A.B.; LYAKHOVSKAYA, Ye.I.; SHLEYMOVICH, R.E.; BUKSHTEYN, V.M.,
redaktor; VALYASHKO, M.G., redaktor; PEL'SH, A.D., redaktor.

[Handbook of experimental data on the solubility of multicomponent
water-salt systems] Spravochnik eksperimental'nykh dannykh po rast-
vorimosti mnogokomponentnykh vodno-solevykh sistem. Vol.1 [Tri-compo-
nent systems] Trekhkomponentnye sistemy. Leningrad, Gos. nauchno-
tekhnicheskoe izd-vo khimicheskoi lit-ry, 1953. 670 p. (MLRA 7:2)

BUKSHTEYN, V.M.

CH
60
Salt deposits of Lake No. 5 of the Karabogazgol Bay. B. I. Akhmedov and V. M. Bukhteln. *Trudy Vsesoyuz. Nauch. Issledovatel. Inst. Galurg.* 1953, No. 27, 214-20; *Referat. Zhur., Khim.* 1954, No. 44550.—Lake No. 5 is a unit of the production basins for mirabilite from the Karabogazgol Bay brine and is used for dumping mother liquor. Over a period of years thick salt deposits have accumulated in this lake. The mother liquor discharged into this lake contains 1.5 times more KCl than the brine in the production basins. As of March 1948 the mother liquor discharged into this lake contained SO₄ 12.17, Cl 54.08, Mg 8.80, Na 23.28, and K 1.69 wt. %. To det. the compn. of the surface layers of the salt deposits 5 holes were drilled to a depth of 100-60 cm. At a distance of 1 km. from the point where the mother liquor is discharged into the lake there was a sharp accumulation of SO₄ (14.24-26.24%). Beyond this point and going farther away there was a decrease of SO₄ and an accumulation of Cl. The compn. of the salts expressed in the Jencke index was Mg 40.70 and SO₄ 14.24. The basic minerals were halite and epsomite. Some carnallite was also found. M. Hoseh

①

ZHDANOVSKIY, A.B.; LYAKHOVSKAYA, Ye.I.; SHLEYMOVICH, R.E.; BUKSHTEYN,
V.M., redaktor; VALYASHKO, M.G., redaktor; FEL'SH, A.D., redak-
tor; KOPS, V.A., otvetstvennyy redaktor; LEVIN, S.S., tekhniche-
skiy redaktor; ERLIKH, Ye.Ya., tekhnicheskoy redaktor.

[Handbook of experimental data on the solubility of multicomponent
water-salt systems] Spravochnik eksperimental'nykh dannykh po
rastvorimosti mnogokomponentnykh vodnosolevykh sistem. Leningrad,
Gos.nauchno-tekhn.izd-vo khim.lit-ry. Vol.2.[Quaternary and more
complex systems] Chetyrekhkomponentnye i bolee slozhnye sistemy.
1954. 1269 p. (MLRA 8:3)
(Solubility)(Salts)(Systems (Chemistry))

QUANTRIN, V.M.

AKHUMOV, Ye.I., dotsent, kandidat khimicheskikh nauk; ROZEN, B.Ya., dotsent, kandidat khimicheskikh nauk.

Handbook of experimental data on the solubility of multicomponent water - salt systems. A.B.Zdanovskii, E.I.Liakhovskaia, R.E.Shleimovich, compilers; V.M.Bukshtein, M.G.Valiashko, A.D. Pel'sh, editors. Reviewed by E.I.Akhumov, B.IA.Rozen. Khim.prom. no.3:190 Ap-My '54. (MLRA 7:8)
(Solubility) (Salts) (Systems(Chemistry)) (Zdanovskiy, A.B.)
(Liakhovskaia, E.I.) (Shleimovich, R.E.)

BUKSHTEYN, V. I.

Chem ✓ Prevention of incrustation formation during the evaporation of sodium sulfate solutions. N. A. Ushatinski, S. I. Gelub, and V. M. Bukshstein (All-Union Sci. Research Inst. Metallurgy, Sverdlovsk). *Khim. Prom.* 1956, 324-9; cf. *U.S.S.R.* 87, 653.—The incrustation during the evapn. of solns. is prevented by priming the soln. with suspended incrustation-forming crystals, either by a preliminary addn.

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of such crystals, or without it, but creating a large no. of crystn. centers. The addn. of crystals is necessary when solns. of salts of low soly. (chalk, gypsum, etc.) are evapd. while with substances of higher soly. none is required. The steam-formation zone is carried outside the heating tubes, the velocity is sufficient to keep the solids in suspension, and the soln. feed and the product recovery are continuous. Results obtained with a demonstration unit are presented, and the incrustation formation is indicated by a decrease in the heat-transfer coeff. of the heating surface, which amounted to 20-30% after 24-30% of operation.

W. M. Sternberg

WMS

10015 07112 YN, V. VI.

white and opposite from extraction

work in the laboratory for

0.1831172 YN, V. M.

21

Extraction of soda by evaporation of soda solutions.
 V. M. Bukshstein, Yu. Ya. Kaganovich, V. A. Ostapina, and
 M. A. Shern. *Trudy Vsesoyuz. Nauch.-Issledovatel.
 Inst. Guberga* 1955, No. 31, 142-54.—Lab. and pilot plant
 expts. showed that Na_2CO_3 solns. contg. Na_2SO_4 and NaCl
 can be evapd. in tubular evaporators in the presence of
 suspended solid phase without scale formation on the heat-
 ing surfaces. When the velocity of circulation of soln. was
 1.8-2.0 m./sec., the over-all heat transfer was 3400 kg.-cal./
 sq.m./°C. Results of the fractional evapn. of the soln.
 agreed with the data of the isotherm of the system Na_2CO_3 -
 Na_2SO_4 - NaCl - H_2O , investigated at 100°. Solid anhyd.
 Na_2CO_3 sepd. on evapg. at a pressure of 1.7 atm. Evapn.
 was accompanied by foaming, which was more pronounced
 with solns. not clarified from suspended slime, and the sepd.
 Na_2CO_3 was finely cryst. and occluded much mother liquor.
 E. M. Elkin

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4E4

11

Bukshteyn, V.M.

USSR/Processes and Equipment for Chemical Industries -
Processes and Apparatus for Chemical Technology

K-1

Abs Jour : Referat Zhur - Khimiya, No 9, 1957, 33256

Author : Ushatinskiy, N.S., Golub, S.I., Bukshteyn, V.M.

Inst :

Title : Prevention of Scale-Formation During Evaporation of Sodium Sulfate Solutions.

Orig Pub : Khim. prom-st', 1956, No 6, 324-329

Abstract : A method of general applicability in conjunction with crystallizing solutions is proposed for the control of scale formation is evaporation apparatus (EA) which consists in an accumulation of crystals of the scale-forming substance in the circulating solution, with or without a preliminary addition of crystals to establish a greater field of crystallization centers (besides the heating surface). It was found that on evaporation of saturated solutions, containing a definite amount of suspended Na-sulfate, and on

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USSR/Processes and Equipment for Chemical Industries -
Processes and Apparatus for Chemical Technology

K-1

Abs Jour : Re: Zhur - Khimiya, No 9, 1957, 33256

continuous removal of the finished product, the stoppage of heating tubes with crystals is completely eliminated in the case of a forced circulation apparatus having no salt separator. Tests carried out in an industrial unit have shown that lowering of heat transfer coefficient in the heating chamber, due to scale formation, at a relatively low rate of circulation (1.8-1.9 m/second) was noted after 20 hours of operation, and was decreased not more than by 20-30% after 40 hours. On the basis of the experiments there has been worked out a scheme of a two-hull uniflow EA with automatically adjusting solution level within the separators. The recommended EA has a forced circulation (2-2.5 m/second, in the heating tubes) and an outlying heating chamber.

Card 2/2

15-57-10-14360
Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 10,
p 163 (USSR)

AUTHORS: Bukshteyn, V. M., Roskina, R. S.

TITLE: Obtaining Mirabilite and Epsomite From Initial Bloedite
Material (Polucheniye mirabilita i epsomita iz astrakha-
nitovogo syr'ya)

PERIODICAL: Tr. Vses. n.-i. in-ta galurgii, 1956, Nr 31, pp 83-98

ABSTRACT: Experimental studies leading to production of sodium
sulfate from bloedite material have shown that epsomite
separates out during evaporation of the solutions, not
only in the stability range of its crystallization, but
also in the metastable region which includes a consider-
able part of the crystallization range of bloedite. By
crystallization in the metastable region during evapo-
ration, perhaps 20 to 50 percent more epsomite may be
separated out than may be obtained in the stable range
of crystallization.

Card 1/1

V. P. Yeremeyev

ARKHANGORODSKIY, L.A.; BUKSHTEYN, Ya.A.; VOROB'YEV, S.V.; GAYENKO,
P.A.; DOLGOV, Ye.N.; ZHIGLIN, A.A.; ZUBOVSKIY, G.P.;
ISHKOV, I.G.; KRYZHANOVSKAYA, G.L.; LISTKATOV, A.A.; LUK'YE,
E.I.; MOROZOV, N.P.; OSTROZETSER, A.S.; PAVLOV, N.A.; PETROV,
L.M.; POPOV, V.N.; TARTAKOVSKIY, M.A.; TAUBE, D.K.; KHANIN,
L.T.; SHAPIRO, TS.S.; SHVAYTSBURG, B.A.; SHEVTSOV, V.D.;
DENISENKOVA, L.M., red.

[Assembler's handbook on performing mechanical assembly and
special work on grain elevators and grain processing enter-
prises] Spravochnik montazhnika; po proizvodstvu mekhano-
montazhnykh i spetsial'nykh rabot na elevatorakh i predpri-
yatiakh po pererabotke zerna. Moskva, TSentr. in-t
nauchno-tekhn. informatsii i tekhniko-ekon. issl., 1963. 519 p.
(MIRA 17:7)

BUKSHTYNOV, A. D.

1. BUKSHTYNOV, A. D.
2. USSR (600)
4. Afforestation
7. Green cover. Nauka i zhizh' 19 no. 11, 1952.

9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

BUKSHTYNOV, A. D.

Russia - Public Works

Careless treatment of an important subject ("Stalin plan for the transformation of nature in action." B. A. Aleksandrov. Reviewed by A. D. Bakshtynov.). Les i step' 5 no. 2, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

BUKSHTYNOV, A. D.

1. BUKSHTYNOV, A. D.
 2. USSR (600)
 4. Great Britain - Forests and Forestry
 7. U.S.A. and England on the road to complete annihilation of their forests, Les. khoz. 6 No. 1, 1953
-
9. Monthly List of Russian Accessions, Library of Congress, May 1953, Uncl.

BUKSHTYNOV, Aleksey Danilovich; YURRE, N.A., red.; SHAKHOVA, L.I., red.;
BACHURINA, A.M., tekhn.red.

[Gutta-bearing plants of the U.S.S.R.] Guttonosy SSSR. Moskva,
Goslesbumizdat, 1957. 195 p. (MIRA 11:1)

1. Chlen-korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh
nauk im. V.I.Lenina.(for Bukshtynov).
(Rubber plants)

BUKSHTYNOV, Aleksey Danilovich; LOSITSKIY, K.B., otv.red.; RYAUZOVA,
N.F., red.; PECHENKIN, I.V., tekhn.red.

[Forest resources of the U.S.S.R. and the world] Lesnye resursy
SSSR i mira. Moskva, Izd-vo M-va sel'.khoz.SSSR, 1959. 60 p.
(MIRA 13:6)

1. Chlen-korrespondent Vsesoyuznoy ordena Lenina akademii
sel'skokhozyaystvennykh nauk imeni V.I.Lenina (for Buxhtynov).
(Forests and forestry)

BUKSHYNOV, P.I., inzh.

Welding of narrow gauge railroad rails. Torf.prom. 39 no.3:8-9
162. (MIRA 15:4)

1. Upravleniye energotoplivnoy promyshlennosti Yaroslavskogo
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(Railroads, Narrow gauge--Rails--Welding)

BALANDIN, A.A., inzh.; RYSIN, V.I., inzh.; BUKSHYNOV, P.I., inzh.

Exchange of practices by the enterprises of economic councils.
Torf. prom. 39 no.7:35-36 '62. (MIRA 16:8)

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(Peat industry)

BUKSHTYROV, P.I., inzh.

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1. Yargostorf.

BUKSHTYNOV, V.I., nauchnyy sotrudnik

Protecting animals from bloodsucking insects. Veterinariia 42 no.7:
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BUKSINSKI, Stanislaw

POLAND

BUKSINSKI, Stanislaw

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Sheet on a 1:50 000 Scale".

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493-500 Sept-Oct 54.

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prof. dr. A.Opalski

(BRUCELLOSIS, complications
polyneuritis)

(POLYNEURITIS, complications
brucellosis)

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Neur. &c. polska 7 no.6:945-954 Nov-Dec 57.

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Z. Kuligowski.

(MUSCLES, abnorm.

amyoplasia congenita (Pol))

(ABNORMALITIES

same)

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A case of gliomangioma. Neur. &c. polska 9 no.4:463-470
Jl-Ag '59.

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Dyrektor: prof. dr Z. Kuligowski i z Oddzialu Neurologicznego
Kierownik: dr E. Jezewska.
(GLIOMA case reports)
(FINGERS neopl)

JEZEWSKA, Ewa; ~~BUKSOWICZ, Czeslaw~~; TARNOWSKA-DZIDUSZKOWA, Eugenia;
DYMECKI, Jerzy

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epilepsy. Neurologia etc. polska 11 no.1:21-31 Ja-F '61.

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Dyrektor i kierownik Oddzialu Neurologicznego: prof. dr med.
Z. Kuligowski.

(CEREBRAL PALSY rehab1)

BILKOWICZ, C.

16 JUL 1968

(213)
(217)

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2. "Evaluation of Laboratory Research in Acute Rheumatic Diseases," Anna HENKOWSKA-MALCZAK, VI, pp. 209-211.
3. "Alterations in Basal Gasation of the Heart, Origin, Attacking Period, the Spread and in the Course of Diabetes," W. Lambka and G. Burdakov, of the Karkow Laboratory of the Institute of Pathology of the Faculty of Medicine of Lodz (Vladimir Ogorodnik, Central Veterinary College, Lodz), director: Prof. Wladyslaw SZYMANSKI, VI, pp. 212-213.
4. "Preventive Treatment of Sugar's Disease and Other Blood Vessel-Circulating Diseases by Means of the Simultaneous Application of Ascorbic, Hippuric and Ferrous Salts," Wacławlaw STUCHOWSKI, VI, pp. 213-217.
5. "The Medical Part in Patients with Evidence Hypertension," Wacławlaw STUCHOWSKI, of the Department of Hypertension Diseases of the Faculty of Medicine of Lodz (Vladimir Ogorodnik, Central Veterinary College, Lodz), director: Prof. W. HENKOWSKA-MALCZAK, VI, pp. 217-219.
6. "An Essay on the Genetic Representation of a Hypertension," Jerry JESZYNSKI, of the Laboratory (Laboratory-1) 5-X (Identification No. 1 of the Academy of Medicine of Lodz (Vladimir Ogorodnik, Central Veterinary College, Lodz), director: A. Wacławlaw MALCZAK, VI, pp. 219-222.
7. "Alters in Vascular Diseases," Barbara LEWICKA-NE-SARNA, of the Clinic of Children's Diseases of the Academy of Medicine of Lodz (Vladimir Ogorodnik, Central Veterinary College, Lodz), director: docent dr. W. Wacławlaw MALCZAK, VI, pp. 222-224.
8. "Two Cases of Turner's Syndrome," Waria ISKRAKOWA, of the Second Pediatric Clinic of the Polish Academy of Medicine in Lodz (Vladimir Ogorodnik, Central Veterinary College, Lodz), director: Prof. Dr. Boleslaw GORDONSKI, VI, pp. 224-227.

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Pruszkow. (Dyrektor Instytutu i Ordynator Oddzialu: prof. dr Z.
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Dyrektor: prof. dr Z. Kuligowski.
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gicznego Dyrektor Instytutu i Ordynator Oddzialu: prof. dr
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(MOVEMENT DISORDERS) (BRAIN DISEASES)

HORYD, Wanda; UKSOWICZ, Czeslaw

The problem of epileptic seizures and EEG hypersyndromism
in cerebral palsy in children (Little's disease). Neurol.
neurochir. psychiat. pol. 13 no.6:829-834 N-D'63

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*

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in Little's syndrome. Chir. narzad. ruchu ortop. Pol. 29 no.6s
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Collisions with Atoms of the Inert Gases."

report presented at the 4th Intl Conference on Ionization Phenomena in Gases, Uppsala,
17-21 August 1959.

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Data on the mechanism of spermatogenesis based on studies with acid-fast dyes on lipid and succinic dehydrogenase activity. Kiserletes Orvostud. 13 no.1:35-48 Mr '61.

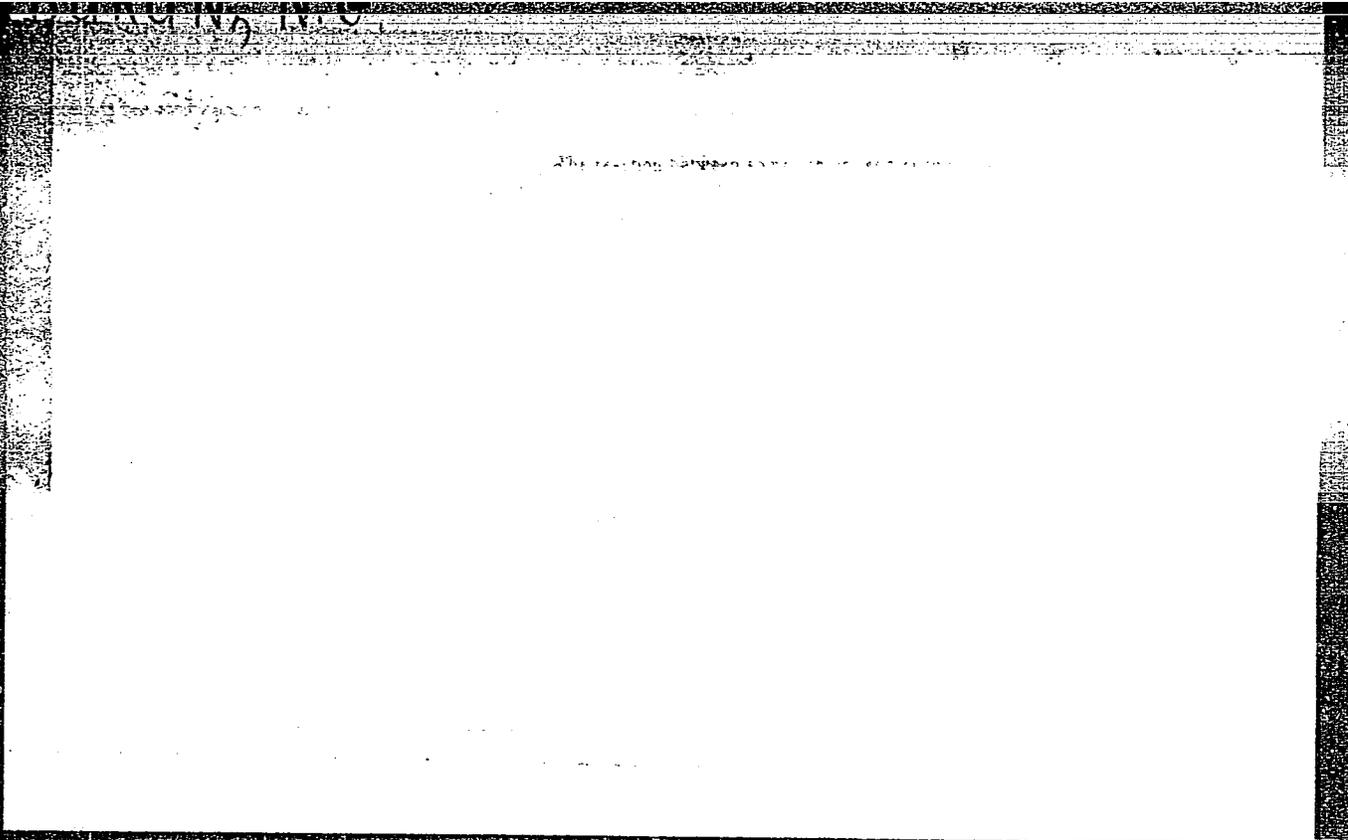
1. Magyar Tudományos Akademia Kiserleti Orvostudományi Kutató Intézet Morfológiai Osztálya és Budapesti Orvostudományi Egyetem Szövet- és Fejtődestani Intézete.
(SPERMATOOZA chem)
(LIPIDS chem)
(SUCCINIC DEHYDROGENASE chem)

POSAIÁKY, Zoltan; BUKULYA, Bela; TORO, Imre; CSAKI, Laszlo

Determination of the effect of thymectomy on spermatogenesis by the measurement of P32 incorporation into testicular nucleic acids and phosphorus fractions in the rat. Kiserl. orvostud. 15 no.6:592-598 D '63.

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(SPERMATOZOA) (DNA) (PHOSPHORUS ISOTOPES)
(THYMUS) (PHYSIOLOGY) (TESTIS) (RNA)



~~5-4~~ 5.4600(B)

66429

AUTHORS: Bukun, N. G., Ukshe, Ye. A.

SOV/20-128-6-34/63

TITLE: On the Solution of Metallic Magnesium in Chloride Melts

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 128, Nr 6, pp 1217 - 1219 (USSR)

ABSTRACT: The solution of metals in salt melts plays an important part in electrochemical processes. Nevertheless the kinetics and course of this reaction have so far not been completely clarified. Various problems arising in practice called for the investigation of the reaction of metals with salt melts. The present paper contains some of the results concerning the reaction of magnesium with the melts of CaCl_2 , LiCl , SrCl_2 , BaCl_2 , NaCl , and KCl . The investigation method was described by A. I. Zhurin in reference 4. A compact piece of magnesium was heated with the salt in a steel cylinder the temperature of which was kept constant by means of the potentiometer of the type EPV-01. After the cylinder was cooled, the metallic-magnesium content of the salt was determined by means of the reaction $\text{Mg} + 2\text{H}_2\text{O} = \text{Mg}(\text{OH})_2 + \text{H}_2$. One of the sources of error, namely the pollution of the melt with macroscopic metal particles, could

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✓

On the Solution of Metallic Magnesium in Chloride
Melts

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SOV/20-128-6-34/63

be eliminated by careful working. The second source of error, namely the formation of gas due to the reaction of the water with carbides set free by the action of Mg on the steel walls of the cylinder, proved to be negligible. Figure 1 shows the solubility of Mg in the salt melts. It is seen that the equation $\text{MgCl}_2 + \text{Mg} \rightleftharpoons \text{Mg}_2\text{Cl}_2$ holds for MgCl_2 concentrations above 50% only. The experimental data suggest exchange reactions of the kinds $\text{Mg} + 2\text{Li}^+ \rightleftharpoons \text{Mg}^{2+} + 2\text{Li}$ and $2\text{Mg} + 4\text{Li} \rightleftharpoons \text{Mg}_2^{2+} + 2\text{Li}_2$. The solubility of Mg decreases with the decreasing polarizing effect of the cation of the salt. Simultaneously the stability of the Mg-Mg bond decreases, which apparently is a prerequisite for the existence of the Mg_2^{2+} ion. It is concluded from this that in the system metal - electrolyte melt not only reactions of the metal with its own ions but also with the cations of the melt have to be considered. A. N. Frumkin's theory of stationary potentials holds for the potentials of liquid metals in salt melts. For the standard potential of magnesium the following expressions were found:

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On the Solution of Metallic Magnesium in Chloride
Melts

66429

SOV/20-128-6-34/63

$\varphi^{\circ}_{\text{Mg}/\text{Mg}^{2+}} = -2.36 \text{ v}$ and $\varphi^{\circ}_{\text{Mg}_2/\text{Mg}^{2+}} = -2.84 \text{ v}$. There are 1 figure
and 9 references, 5 of which are Soviet.

ASSOCIATION: Bereznikovskiy filial Vsesoyuznogo alyuminiyevo-magniyevogo
instituta (Berezniki Branch of the All-Union Institute of
Aluminum and Magnesium)

PRESENTED: June 22, 1959, by A. N. Frumkin, Academician

SUBMITTED: May 19, 1959

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86844

S/020/60/135/005/036/043
B004/B075

26.2570

AUTHORS: Ukshe, Ye. A., ~~Bukun, N. G.~~, and Leykis, D. I.
TITLE: The Capacity of an Electric Double Layer in Molten Salts
PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 5,
pp. 1183-1186

TEXT: At present, the authors are systematically investigating the capacity of an electric double layer in molten salts. The present paper reports on results so far obtained. The experiments were carried out in an argon atmosphere at 700-800°C. The analyzer consisted of quartz with a polished molybdenum glass cover. Spectroscopically pure graphite served as a polarization electrode, Pb/KCl, NbCl (1:1), 2.5 mole% PbCl₂ as a reference electrode. A melt of KCl and NaCl was used as an electrolyte. The authors investigated the capacity C of a lead- and a cadmium electrode as a function of the potential ψ at 20-200 kc/sec. This function showed a marked minimum, the potential in the case of a capacity minimum depending only on the metal type, but not on frequency and (up to 100°C) not on temperature. Capacity and resistance were dependent on frequency. Here a greater spread of values
Card 1/3

86844

The Capacity of an Electric Double Layer in
Molten Salts

S/020/60/135/005/036/043
B004/B075

was found than in solutions, and continued to be so even at high temperatures. Therefore, the data measured at 200 kc/sec were taken as standards. The potential corresponding to the capacity minimum, almost fully coincides with the maximum potential of the electrocapillary curve (Refs. 4, 5). By this means, a determination of the zero potential of metals by measuring the capacity in melts is rendered possible. In order to prove the measured capacities as actually being those of the electric double layer, it is stated that the electrocapillary curve was obtained by double integration of the curve $C = f(\psi)$. Therefore, the following conclusions are drawn: The capacity of the electric double layer in molten electrolytes has a minimum at the zero potential of the metal. The minimum of the function $C = f(\psi)$ corresponds to a capacity of 36-38 microfarads/cm². Capacity increase of the electric double layer with increasing charge of the metal surface can be explained by a deformation of the electron shells of the ions and by a structural densification of the melt (displacement of the holes from the layer near the electrode). With a considerable shift of potential, pseudocapacity appears, caused by dissolution of the electrode or by a discharge of alkali cations. The authors thank Academician A. N. Frumkin, and Professor B. N. Kabanov for discussions. S. V. Karpachev and A. G. Stromberg are mentioned. There are 3 figures and 6 references: 2 Soviet, 4 US,
Card 2/3

86844

The Capacity of an Electric Double Layer in
Molten Salts

S/020/60/135/005/036/043
B004/B075

and 1 German.

ASSOCIATION: Institut elektrokhemii Akademii nauk SSSR. (Institute of
Electrochemistry of the Academy of Sciences USSR).
Bereznikovskiy filial Vsesoyuznogo alyuminiyevo-magniyevogo
instituta (Berezniki Branch of the All-Union Institute of
Aluminum and Magnesium)

PRESENTED: July 6, 1960, by A. N. Frumkin, Academician

SUBMITTED: July 2, 1960

Card 3/3

BUKUN, N.G.; UKSHE, Ye.A.

Reaction of metallic magnesium with fused chlorides. Zhur.neorg.
khim. 6 no.4:913-919 Ap '61. (MIRA 14:4)

1. Bereznikovskiy filial Vsesoyuznogo alyuminiyevomagniyego
instituta.

(Magnesium)

(Chlorides)

S/074/61/030/002/001/001
B124/B203

AUTHORS: Ukshe, Ye. A. and Bukun, N. G.

TITLE: Dissolution of metals in molten halides

PERIODICAL: Uspekhi khimii, v. 30, no. 2, 1961, 243-273

TEXT: The present paper gives a survey of publications on dissolution processes of metals in melts without making mention of new papers by the authors. The dissolution of metals in salt melts is of great importance to many electrometallurgical and thermal processes such as the production of titanium, magnesium, aluminum, sodium, etc., as well as to the purification of metals. The solutions mentioned are most interesting also from a theoretical point of view since they permit essential conclusions to be drawn on the interaction in ion media and on the liquid state. For the formation of true solutions of metals in salt melts, three concepts can be assumed: 1) Dissolution of the metal in the form of atoms evenly distributed over the entire volume of the solution; 2) dissolution of the metal in salt melts by chemical interaction of the electrolyte with the metal, with forma-

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Dissolution of metals in molten...

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tion of low-valency ions (sub-ions); and 3) solutions of metals in salt melts may be regarded as structural units which are identical with the color centers (F centers) so that these solutions might be called ion-electron liquids. Data are given on the formation of ions and compounds of low-valency. The apparent valency \tilde{n} of a metal can be determined from the anodic current yield of aqueous solutions of metals, and is generally very low (Table 1). The \tilde{n} values are not dependent on the current density or the concentration of the solution but they are determined by the anodic potential (Table 2). The basic data for calculating the formation heats of subhalides are also given, namely I = ionization potential, G = sublimation temperature, $I/2$ D = dissociation temperature, E = electron affinity, and the ionic radii (Table 3). The calculated and experimentally found values for the lattice energies and the formation heats of subhalides are given (Table 4), the difference not exceeding 10%. The color centers in ion crystals are described, studied, and characterized. The solubility of alkali-, alkaline-earth-, amphoteric, and other metals in halide melts, as well as in dependence on the type of halide, was also studied, as well as the effect of secondary cations on the solubility of metals. The solutions of metals in

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salt melts were also studied cryoscopically. The structures of sodium and potassium dissolved in their halides (Table 12), and that of Bi in BiCl_3 (Fig. 7), were studied, where T_f is the melting point of the pure solvent, $K_f = RT_f M_0 / 1000 L_f$ is the cryoscopic constant, L the melting heat of the pure solvent, M_0 its molecular weight, and v the number of particles formed on dissolution of a metal. Further items of this study are the effect of metal dissolution on the vapor pressure of molten salts, the volume effects on metal dissolution in salt melts, potentiometric investigations of metal solutions, and the electrical conductivity of metals dissolved in salt melts. Finally, magnetic and spectroscopic studies of metals dissolved in salt melts, and the dissolution in electrochemical processes, are described. ✓
Ya. I. Ol'shanskiy, S. A. Semenkovich, D. V. Kerkoulina, V. B. Kabanov, N. A. Belozerskiy, K. B. Yatsimirskiy, Kapustinskiy, A. F. Ioffe, P. S. Tartakovskiy, A. I. Zhurin, S. V. Karpachev, A. G. Stromberg, M. V. Smirnov, N. Ya. Chukreyev, A. I. Bukhbinder, L. N. Antipin and L. Suskiy are mentioned. There are 10 figures, 16 tables, and 167 references: 53 Soviet-

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Dissolution of metals in molten...

S/C74/61/030/002/001/001
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bloc and 71 non-Soviet-bloc.

ASSOCIATION: Bereznikovskiy filial Vsesoyuznogo alyuminiyevomagniyevogo in-ta (Berezniki Branch of the All-Union Aluminum and Magnesium Institute)

Legend to Table 1:
Apparent valency \bar{n} in anodic dissolution of some metals in aqueous solutions.
a) Normal valency

Me	Be	Al	Mg	Zn	Tl	Ga	U	In	Mn	Hg
Норм. валентность а)	2	3	2	2	3	3	4	3	3	2
\bar{n}	1	1.3	1.2	1.4	1.5	1	1.4	1	1.7	1

filled ✓

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Dissolution of metals in molten...

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Legend to Table 2:
Dependence of $\tilde{\eta}$ on the type
of solution and the anodic
potential; a) solution,
b) concentration in g-equ/l

ТАБЛИЦА 2

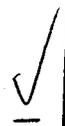
Зависимость $\tilde{\eta}$ от природы раствора
и от потенциала анода по ^{22, 45}

а) Раствор	б) Концентрация в г-экв/л	i_a mA/cm ²	$\varphi, \text{В}$	$\tilde{\eta}$
MgCl ₂	0,1-4,0	150	-1,7	
MgBr ₂	0,1-1,0	100	-1,62	1,26
MgSO ₄	0,01-1,0	100	-1,55	1,30
MgSO ₄ + K ₂ CrO ₄	1,0	100	-1,5	1,35
	0,05			1,30
KClO ₃	1,5	6,4	-1,3	1,64

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Dissolution of metals in molten...

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Legend to Table 3:
Thermochemical
characteristics of
ions, kcal/mole;
a) ion

ТАБЛИЦА 3
Термохимические характеристики ионов, ккал/моль

a)				b)							
Ион	I	σ	r, Å	Ион	I	σ	r, Å	Ион	E	M ₂ O	r, Å
Ag ⁻	177,7	35,0	1,91	Zn ⁺	216,0	31,0	1,27	F ⁻	93,5	32,2	1,33
Ca ⁻	142,2	46,0	2,36	Cd ⁺	206,0	27,0	1,44	Cl ⁻	88,2	28,9	1,81
Sr ⁻	132,8	30,2	2,53	In ⁺	134,8	58,2	1,49	Ba ⁻	81,6	26,9	1,96
Ba ⁻	121,6	42,0	2,74	Ga ⁺	139,8	66,0	1,33	J ⁻	74,6	25,4	2,20
Tl ⁺	142,3	44,5	1,49	Sn ⁺	140,6	72,0	1,62				
Al ⁻	139,5	75,0	1,60	Pb ⁺	172,5	46,3	1,70				
Hg ⁺	242,6	14,5	1,44	Sb ⁺	200,7	60,8	1,40				
Br ⁻	169,4	49,7	1,75								

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Dissolution of metals in molten...

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Legend to Table 4:
Lattice energies
and formation heats
of subhalides and of
normal salts (298°K);
a) subhalide,
b) kcal/mole,
c) halide

Substance	U, kcal/mole b)	W, kcal/mole b)	Substance	U, kcal/mole b)	Substance	U, kcal/mole b)	W, kcal/mole b)	Substance	U, kcal/mole b)
MgF	189.4	37.1	MgF ₂	263.5	AlF	187.7	34.5	AlF ₃	311.0
MgCl	179.3	25.0	MgCl ₂	153.4	AlCl	173.8	18.6	AlCl ₃	166.2
MgBr	179.8	21.6	MgBr ₂	123.7	AlBr	170.2	10.4	AlBr ₃	125.8
MgJ	178.6	14.2	MgJ ₂	86.0	AlJ	168.8	3.0	AlJ ₃	75.2
CaF	168.2	41.0	CaF ₂	293.3	TiF	193.3	67.8	TiF ₃	—
CaCl	157.9	29.0	CaCl ₂	193.0	TiCl	177.5	50.0	TiCl ₃	—
CaBr	157.9	24.4	CaBr ₂	151.3	TiBr	175.5	43.4	TiBr ₃	—
CaJ	156.7	17.7	CaJ ₂	127.8	TiJ	171.5	33.9	TiJ ₃	—
SrF	159.1	48.4	SrF ₂	290.3	ZrCl	210.7	23.0	ZrCl ₂	99.4
SrCl	151.8	39.1	SrCl ₂	198.0	CdCl	202.1	28.4	CdCl ₂	93.0
SrBr	151.7	34.4	SrBr ₂	171.1	InCl	175.5	41.8	InCl ₂	125.4
SrJ	153.7	30.9	SrJ ₂	135.5	GaCl	181.9	35.4	GaCl ₃	125.4
BaF	151.4	49.1	BaF ₂	286.9	SrCl	173.8	20.5	SrCl ₂	83.6
BaCl	144.5	40.2	BaCl ₂	205.6	PtCl	182.4	22.9	PtCl ₂	85.8
BaBr	144.6	35.7	BaBr ₂	180.4	SnCl	200.9	-1.3	SnCl ₂	91.6
BaJ	144.0	29.6	BaJ ₂	144.0	BiCl	180.1	20.3	BiCl ₃	90.8

Card 7/9

Dissolution of metals in molten...

S/074/61/030/002/001/001
B124/3203

✓

Legend to Table 12:
Structure of dissolved
sodium and potassium in
halides; a) salt,
b) kcal/mole

ТАБЛИЦА 12
Структура растворенного натрия и калия в галосенидах

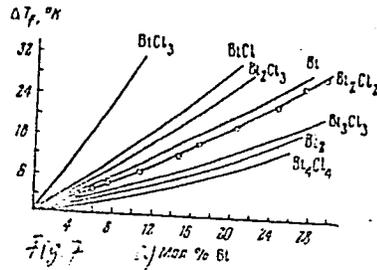
№ Соль	T _f , °K	Na					K						
		L _f $\frac{kcal}{M}$	$\Delta T_f, °K \cdot 10^3$	K _f	v	Соль	T _f , °K	L _f $\frac{kcal}{M}$	$\Delta T_f, °K \cdot 10^3$	K _f	v		
NaF	1268	7,8	5	2,5	13,7	0,60	KF	1131	6,75	9	45	18,8	0,60
NaCl	1073	6,7	5	2,1	18,5	0,73	KCl	1043	6,34	18	10	26,6	0,54
NaBr	1020	6,24	7	2,9	33,2	0,72	KBr	1007	6,10	26	17	32,4	0,46
NaJ	933	5,64	3	1,6	49,0	0,55	KJ	954	5,74	23	12	48,5	0,57

Card 8/9

Dissolution of metals in molten...

S/074/61/030/002/001/001
B124/B205

Legend to Fig. 7:
Comparison of experimental data
on the melting-point lowering
of BiCl_3 on dissolution of Bi
with the calculated values
obtained for various structural
schemes of solutions, a) mole %
of Bi.



Card 9/9

UKSHE, Ye.A.; BUKUN, N.G. (Berezniki)

Faradic impedance of lead in molten chlorides. Zhur.fiz.khim.
35 no.12:2689-2694 D '61. (MIRA 14:12)

1. Bereznikovskiy filial Vsesoyuznogo alyuminiyevo-magniyevogo
instituta.

(Lead chloride--Electric properties)

UKSHE, Ye.A.; BUKIN, N.G.; LEYKIS, D.I.

Double electrical layer in fused salts. Zhur. fiz. khim. 36
no.11:2322-2328 N'62. (MIRA 17:5)

1. Institut elektrokhemii AN SSSR i Bereznikovskiy filial
Vsesoyuznogo alyuminiyevo-magniyevogo instituta.

S/062/63/000/001/005/025
B101/B186

AUTHORS:

Ukshe, Ye. A., Bukun, N. G., and Leykis, D. I.

TITLE:

Effect of the nature of the electrolyte on the capacity of the double layer in molten salts

PERIODICAL:

Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 1, 1963, 31-36

TEXT: The capacity of the double layer of a molten lead electrode was measured at 18-20 kc/s. The electrode was in a capillary tube and covered with molten alkali halide. The reference electrode used was: Pb|10% by weight PbCl₂ + electrolyte tested. The following compounds were studied as electrolytes: NaCl; NaBr; NaI; NaCl + NaF 1:1; NaCl + KCl 1:1; NaCl + NaI; KCl, KBr, KI, KCl + KF; CsCl, CsI; LiCl; LiCl + 20 mole% LiI. The temperature was 800°C, with NaCl 820°C. Results: The nature of the electrolyte had a marked effect on the structure of the double layer. The alkali halides can be subdivided into two groups. Na and Li halides give high capacity, this being strongly dependent on the nature of the ... C_{min} (μF/cm²) is for NaCl 43, NaBr 52, NaI 75, LiCl 35,

Effect of the nature of the ...

S/062/63/000/001/005/025
B101/B186

LiCl + 20 mole% LiI 75; the potential ψ_{\min} is about -0.46 to -0.48 v, the C-versus- ψ curve rises sharply on both sides of the minimum. The capacity produced by K and Cs halides is lower and not much affected by the nature of the anion (except F⁻): C_{\min} is for KCl and CsCl 28, KBr 29, KI 32, CsI 33; ψ_{\min} is about -0.55 to -0.60 v; the curve $C = f(\psi)$ is flatter. In both groups, addition of F⁻ ions increases the capacity proportionately to the F⁻ concentration. Iodide addition to NaCl and LiCl increases C_{\min} rapidly to the limiting value of NaI and LiI respectively, which is reached already with 20 mole% iodide. The following assumptions are made to explain the results: (1) The thickness and capacity of the double layer changes owing to deformation of the ions and of the double layer; (2) the surface activity of the anions increases in the order F⁻ < Cl⁻ < Br⁻ < I⁻; (3) Owing to their small radius, the Li⁺ and Na⁺ cations replace anions from the metal-electrolyte interface and their amount adsorbed exceeds the equivalent quantity. There are 6 figures and 1 table.

Card 2/3

Effect of the nature of the ...

S/062/63/000/001/005/025
B101/B186

ASSOCIATION:

Institut elektrokhemii Akademii nauk SSSR (Institute of Electrochemistry of the Academy of Sciences USSR); Bereznikovskiy filial Vsesoyuznogo alyuminiyevo-magniyevogo instituta (Berezniki Branch of the All-Union Institute of Aluminum and Magnesium)

SUBMITTED:

May 9, 1962

Card 3/3

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ACCESSION NR: AP3002943

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S/0016/63/037/006/1401/1403

60
59

AUTHOR: Bukun, N. G.; Ukshe, Ye. A.

TITLE: The capacity of the double layer of tellurium and gallium in chloride fusion

SOURCE: Zhurnal fizicheskoy khimii, v. 37, no. 6, 1963, 1401-1403

TOPIC TAGS: liquid tellurium, gallium, argon, electrocapillary curve, chloride fusion

ABSTRACT: In this work, the results of measuring the capacity of the double electrical layer of liquid tellurium and gallium in the eutectic mixture KCl from LiCl are presented. The gallium capacity curves were taken at 450C and at 550C for tellurium. The measurements were taken in a stream of argon. The electrode used for comparison was Pb/10 in wt. %, PbCl sub 2, KCl:LiCl, which has a more positive potential than the stationary lead electrode used for measurements of electrocapillary curves. The obtained results confirm that, in the fused salts, the potential minimum is connected with the transference of the metal potential across the zero charge. The results agree satisfactorily with the presented electrocapillary measurement of the corresponding metals. Orig. art. has: 1 table and 3 figures.

Association: Branch, All-Union Aluminum and Magnesium Institute
Card 1/2/

BUKUN, N.G.; UKSHE, Ye.A.

Temperature dependence of the capacity of the double layer
in fused salts. Zhur. prikl. khim. 36 no.9:1965-1969 D '63.
(MIRA 17:1)

1. Bereznikovskiy filial Vsesoyuznogo nauchno-issledovatel'skogo allyuminiyevo-magniyevogo instituta.

UKSHE, Ye.A.; BUKUN, N.G.

Method of measuring the capacity of the electrical double layer in fused salts. Zhur.fiz.khim. 37 no.7:1646-1649 J1 '63. (MIRA 17:2)

1. Vsesoyuznyy alyuminiyevo-magniyevyy institut, Bereznikovskiy filial.

UKSHE, Ye.A.; BUKUN, N.G.

Study of binary salt systems by the method of double layer capacity.
Zhur.neorg.khim. 9 no.4:944-948 Ap '64.
(MIRA 17:4)

URSHE, Ye.A.; BUKH, N.G.

The system $MgCl_2$ - $LiCl$. Zhur. neorg. khim. 9 no.7:1766-
1767 JI '64. (MIRA 17:9)

UKSHE, Ye.A.; BUKUN, N.G.

Study of salt systems $\text{CaCl}_2 - \text{NaCl}$ and $\text{CaCl}_2 - \text{KCl}$ using the electrode capacity method. Zhur. neorg. khim. 9 no.10:2494-2495 0 '64. (MIRA 17:12)

1. Bereznikovskiy filial Vsesoyuznogo alyumniyevo-magniyevogo instituta.

UKACHE, Ye.A.; BUKUN, N.G.

Effect of the nature of fused salt and of the temperature on the
properties of a double-electric layer. *Elektrokhimiya* 1 no.1:113-
115 Ja '65. (MIRA 18*5)

1. Bereznikovskiy filial Vsesoyuznogo aluminievogo-magniyevogo
instituta.

UKSHE, Ya.A. (Berezniki); STEFANOV, S.I. (Berezniki); BUKUN, N.G. (Berezniki)

Behavior of hard metals in fused potassium chloride. Izv. AN SSSR.
Met. no.1:148-150 June '65.
(MIRA 18:5)

BUKUN, N.G.; UKSHE, Ye.A.

Fused mixtures of barium chlorides with alkali metal chlorides studied by the capacitance measurement method. Zhur. neorg. khim. 10 no.3:729-730 Mr '65.

Study of binary solutions of alkali metal chlorides by the capacitance measurement. Ibid.:731-732

1. Bereznikovskiy filial Vsesoyuznogo alyuminiyevo-magniyevogo instituta. (MIRA 18:7)

UKSHE, Ye.A.; BUKUN, N.G.

Capacity method for studying fused mixtures of strontium and
alkali metal chlorides. Zhur.neorg.khim. 10 no.4:1008-1010
Ap '65.

(MIRA 18:6)

1. Bereznikovskiy filial Vsesoyuznogo alyuminiyevo-magniyevogo
instituta.

UKSHE, Ya.A.; BUKUN, N.G.

Study of fused mixtures of $\text{RbCl} - \text{MgCl}_2$ and $\text{CsCl} - \text{MgCl}_2$ by the double layer capacity method. Zhur. neorg. khim. 10 no.2:551-552 F '65. (MIRA 18:11)

1. Bereznikovskiy filial Vsesoyuznogo alyuminiyev-magniyovogo instituta. Submitted June 25, 1964.

BUKUN, N.G.; SVAYLOV, G.N.

Double layer capacity in fused alkaline earth metal chlorides.
Elektrokhimiya 1 no.7:880-881 J1 '65. (MIRA 11:10)

1. Bereznikovskiy filial Vsesoyuznogo alyuminiyovo-magnitnyego
instituta.

Bukur, A.

SAGIN, F. Q-2
Country : USSR
Category : Farm Animals.
Abs. Jour : Cattle.
Ref Zhur-Biol., No 16, 1958, 74035
Author : Palamarn, Ye.; Ruseu, G.; Nikolichin, S.*
Institut. : -
Title : Raising of Young Cattle Stock with Rations
Rich in Roughage and Juicy Fodder.
Orig Pub. : Mezhdunar. s.-kh. zh., 1957, No 1, 89-97
Abstract : No abstract.

Card:

1/1

Sagin, F.; Krishan, T.; Bukur, A.;
Kafzneti, Ye.